

Wisconsin Department of Natural Resources
Wisconsin's Northern State Forest Assessments:
Socioeconomics for the NHAL State Forest Region

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Executive Summary

Forest resources provide the basis for much of the economic and social activity taking place in rural Wisconsin. This is particularly true in the northern parts of the state where tourism and wood products manufacturing provide mainstays to local economies. An important aspect of forest planning includes an assessment of the community development implications of resource use. Specifically, this includes both the (1) linkages between natural resources and regional economic activity and (2) social interactions taking place locally among interested stakeholder groups.

In this report, data and analysis focuses attention on the region containing and surrounding the Northern Highland/American Legion (NH/AL) State Forest. The intent of this research was to develop estimates of the role this property plays in community development and to develop measures that assist in understanding the ability of the NH/AL State Forest (and other forested lands in the region) to support multiple uses. Specifically, the objectives included identifying characteristics of two primary uses of these forests --- for recreation and for timber production. These characteristics included the extent, importance, performance, and compatibility of uses. In addition, estimates of the regional economic impacts of forest land use for recreation and timber are developed for the seven counties containing and surrounding the NH/AL State Forest.

This research is based on additional analysis of an existing dataset developed during 1996 and 1997. Data was collected using a three-phase design that included (1) recreational use surveys, (2) analysis of timber inventory data, and (3) regional economic modeling using input-output analysis. The recreational use survey was based on instruments that allowed estimation of recreational use by type and location, land ownership, expenditure patterns, user conflicts, and demographic characteristics. The 1996 Wisconsin timber inventory combined with timber prices allowed estimates to be made of the economic value of average annual removals. Furthermore, the inventory data was used to assess regional forest growth to forest removal ratios. These ratios provide a snapshot of wood-products based forest use with respect to the gross status of regional forest resource stocks. The final phase of the research developed economic models used to estimate patterns of impact for forest use (both timber and recreational

use) on regional economic characteristics including employment and income.

Results of this research suggest that forests do indeed provide the basis for much of the economic activity of this rural region. The average annual value of timber removals in this seven county region was approximately \$33 million. Only a small portion of this (roughly \$2 million) was harvested from state properties (namely the Northern Highland/American State Forest.) Timber production in the region provided a partial basis for primary, secondary, and reconstituted wood products sector activity that, during 1995, accounted for approximately 22 percent of the region's industrial output (roughly \$1.07 billion of \$4.92 billion). The bulk of regional timber production takes place on nonindustrial private forest lands.

Recreation is another important driver of regional economic activity. On average, annual household spending by forest-based recreationists in this seven county region ranged from \$205 for households whose primary recreational pursuit was classified as "passive" to \$855 for those classified as "motorized users." This spending provided a significant portion of the receipts of regional tourism-sensitive sectors. These sectors accounted for another 8 percent of regional industry output (roughly \$392 million of \$4.92 billion). The use of forest land for recreation had interesting differences by ownership type. A surprising amount of forest-based recreation took place on privately owned lands, both industrial private and nonindustrial private lands. Also, there were interesting differences in use of lands by the various types of recreational user. Clearly, passive recreationists relied heavily on state owned public lands while hunters focused their use on nonindustrial private forest lands. Motorized use was more difficult to characterize and had the highest levels of use on unidentifiable ownerships (motorized recreationists were generally less aware of whose land they were recreating on).

Forest-based activities impact the ability of households in this region to generate income. The employee compensation (e.g. wages paid to workers) portion of value added accounted for approximately 20 percent of total wood-products output and 32 percent of tourism-sensitive output. Average jobs in tourism-sensitive sectors earned almost \$9,600 per year while wood-based industries paid approximately \$29,700 per year. These figures are compared to average statewide earnings per job across all sectors of almost \$25,000 per year.

In general, results of this study suggest that timber production and recreational use of forests were generally compatible land uses. This was more apt to be the case with hunters and motorized recreationists than with the broad category of "passive" forest recreationists. Furthermore, forest-based recreationists generally felt that balanced use (for both timber and recreation) was an important component of local economic conditions for communities in this region and that forest land managers should account for these localized effects on rural populations in decision-making.

Although more work is required to fully understand the linkages between forests and community development, there are clear implications of this research for both development policy and forest management policy. Development of rural forested regions benefits from a clear understanding of the tourism and forestry sectors. Whereas the tourism industry needs to better recognize the latent value of forests as a basis for demand, forest managers and the forest products industry need to continue their efforts at managing forests in a sensitive and scientifically sound manner that more fully accounts for both timber **and** nontimber values.

This research was conducted as a collaborative effort of the Wisconsin Department of Natural Resources (WDNR) Bureau of Forestry and the University of Wisconsin - Madison/Extension.